



Volunteer Lake Assessment Program Individual Lake Reports

SPECTACLE POND, ENFIELD, NH

MORPHOMETRIC DATA

Watershed Area (Ac.):	808	Max. Depth (m):	5.5	Flushing Rate (yr ⁻¹)	1.4	Year	Trophic class	KNOWN EXOTIC SPECIES
Surface Area (Ac.):	108	Mean Depth (m):	3	P Retention Coef:	0.68			
Shore Length (m):	4,200	Volume (m ³):	1,313,500	Elevation (ft):	1183			

TROPHIC CLASSIFICATION

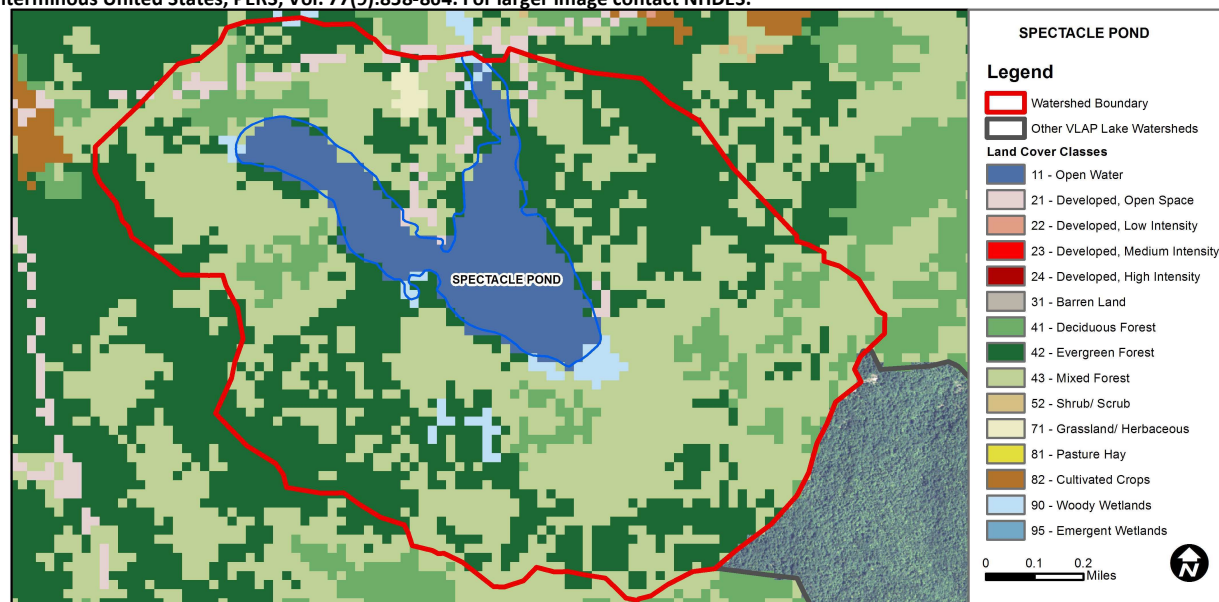
KNOWN EXOTIC SPECIES

The Waterbody Report Card tables are generated from the 2012 305(b) report on the status of N.H. waters, and are based on data collected from 2001-2011.

Designated Use	Parameter	Category	Comments
Aquatic Life	Phosphorus (Total)	Good	>=5 samples and median is < threshold but > 1/2 threshold value.
	pH	Cautionary	< 10 samples and 1 exceedance of criteria. More data needed.
	D.O. (mg/L)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	D.O. (% sat)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	Chlorophyll-a	Good	>=5 samples and median is < threshold but > 1/2 threshold value.
Primary Contact Recreation	E. coli	Good	Geometric means < criteria; however at least 1 exceedance of the single sample criteria occurred.
	Chlorophyll-a	Encouraging	< 10 samples and no exceedance of criteria. More data needed.

WATERSHED LAND USE SUMMARY

Fry, J., Xian, G., Jin, S., Dewitz, J., Homer, C., Yang, L., Barnes, C., Herold, N., and Wickham, J., 2011. Completion of the 2006 National Land Cover Database for the Conterminous United States, PERS, Vol. 77(9):858-864. For larger image contact NHDES.



Land Cover Category	% Cover	Land Cover Category	% Cover	Land Cover Category	% Cover
Open Water	11.3	Barren Land	0	Grassland/Herbaceous	0.45
Developed-Open Space	1.78	Deciduous Forest	6.88	Pasture Hay	0
Developed-Low Intensity	0	Evergreen Forest	32.83	Cultivated Crops	0
Developed-Medium Intensity	0	Mixed Forest	45.06	Woody Wetlands	1.7
Developed-High Intensity	0	Shrub-Scrub	0	Emergent Wetlands	0



VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS

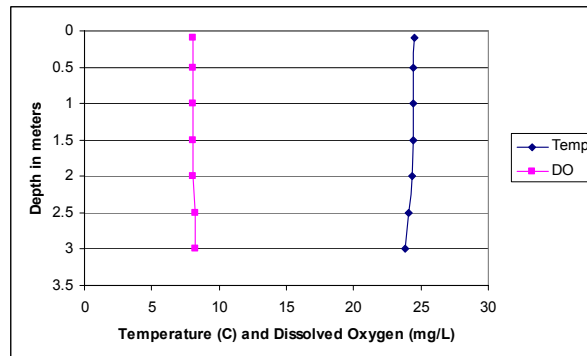
SPECTACLE POND, ENFIELD, NH

2012 DATA SUMMARY

OBSERVATIONS AND RECOMMENDATIONS (Refer to Table 1 and Historical Deep Spot Data Graphic)

- 🔥 **CHLOROPHYLL-A:** The chlorophyll level was low, less than the NH lake median, and approximately equal to historical levels.
- 🔥 **CONDUCTIVITY/CHLORIDE:** Conductivity was relatively low and slightly greater than the NH lake median.
- 🔥 **TOTAL PHOSPHORUS:** Epilimnetic (upper water layer) phosphorus was low, less than the NH lake median, and approximately equal to historical levels. Outlet phosphorus was slightly greater potentially due to sediment and/or organic matter as the turbidity was slightly elevated.
- 🔥 **TRANSPARENCY:** Transparency was good and the Secchi disk was visible on the pond bottom.
- 🔥 **TURBIDITY:** Epilimnetic turbidity was low. Outlet turbidity was slightly elevated likely due to sediment and/or organic matter due to low flow conditions.
- 🔥 **pH:** pH levels were sufficient to support aquatic life.
- 🔥 **RECOMMENDED ACTIONS:** Increase sampling frequency to three times per summer to better assess summer water quality and historical trends. Keep up the great work!

Dissolved Oxygen & Temperature Profile



Station Name	Table 1. 2012 Average Water Quality Data for SPECTACLE POND						
	Alk.	Chlor-a	Cond.	Total P	Trans.		Turb.
	mg/l	ug/l	uS/cm	ug/l	m		ntu
					NVS	VS	
Deep Epilimnion	6.9	2.39	42.5	7	3.50	3.75	0.84
Outlet			50.8	14			1.68

NH Median Values: Median values for specific parameters generated from historic lake monitoring data.

Alkalinity: 4.9 mg/L
Chlorophyll-a: 4.58 mg/m³
Conductivity: 40.0 uS/cm
Chloride: 4 mg/L
Total Phosphorus: 12 ug/L
Transparency: 3.2 m
pH: 6.6

NH Water Quality Standards: Numeric criteria for specific parameters. Results exceeding criteria are considered a water quality violation.

Chloride: < 230 mg/L (chronic)
E. coli: > 88 cts/100 mL – public beach
E. coli: > 406 cts/100 mL – surface waters
Turbidity: > 10 NTU above natural level
pH: 6.5-8.0 (unless naturally occurring)

HISTORICAL WATER QUALITY TREND ANALYSIS

Parameter	Trend	Explanation
Chlorophyll-a	N/A	Ten consecutive years of data necessary to establish trend.
Transparency	N/A	Ten consecutive years of data necessary to establish trend.
Phosphorus (epilimnion)	N/A	Ten consecutive years of data necessary to establish trend.

This report was generated by the NH DES Volunteer Lake Assessment Program (VLAP). For more information contact:
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